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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/269,999	06/28/99	SMITH	R S1011/20102

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HM12/0406

EXAMINER

WARE, T

ART UNIT

PAPER NUMBER

1615

DATE MAILED:

04/06/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/269,999

Applicant(s)

SMITH ET AL.

Examiner

Todd D Ware

Art Unit

1615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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### **DETAILED ACTION**

Receipt of election of species filed 1-29-01 is acknowledged.

1. Claim 20 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

Election was made **without** traverse in Paper No. 9.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 11 and 13-18 rejected under 35 U.S.C. 102(b) as being clearly anticipated by Sambrook et al (WO 93/04013; hereafter '013).

'013 discloses all the limitations of the instant claims. See the abstract and page 7, line 4 - page 8, line 13 and examples. The pore sizes are disclosed as being dependant on the filter (page 7, last two lines). Filter sizes are then discloses in the examples as being 10-16 microns.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sambrook et al (WO 93/04013; hereafter '013).

'013 teaches all the limitations of the instant claims. '013 does not specify pore sizes greater than 150 microns. '013 does teach adjustment of the pore size through choice of filter, drying under reduced pressure, which causes the foam to expand, or adjusting the speed of stirring when introducing the gas bubbles. Accordingly, adjustment of the pore size would be obvious to one skilled in the art at the time of the invention according to the nature of the intended article (i.e. impregnation of the pores with agents).

6. Claims 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sambrook et al (WO 93/04013; hereafter '013) in view of Takagi et al (US 4,654,314; hereafter '314) or vice versa.

'013 is relied upon for all that it teaches as stated previously. '013 does not specifically state including the subsequent step of growing bone cells in the porous ceramic product. '013 does state that the products are useful for artificial parts for the body.

'314 is relied upon for teaching that artificial parts comprising growth of bone cells in ceramic products is known. '314 also teaches that the pores of the ceramic product should be between 1 and 600  $\mu\text{m}$  to promote induction of "new-born bone" and turnover of a bone while keeping a good compatibility with a living body.

Accordingly, it would have been obvious to one skilled in the art at the time of the invention to incorporate bone cells into the invention of '013 with the motivation of using

the ceramic products as artificial parts comprising growth of bone cells and the expectation that the products would be useful for inducing new-born bone, controlling resorption of bone with age, and remedying bone defects.

Also, it would have been obvious to one skilled in the art at the time of the invention to incorporate the invention of '013 into the teachings of '314 as the method of making the ceramic products and the resulting products of '013 may be made more quickly, with better mechanical strength and handling and machining characteristics.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd D Ware whose telephone number is (703) 305-1700. The examiner can normally be reached on 7:30 AM - 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K Page can be reached on (703)308-2927. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4556 for regular communications and (703) 308-4556 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.

tw  
April 4, 2001

  
**THURMAN K. PAGE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1600**